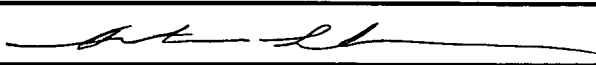


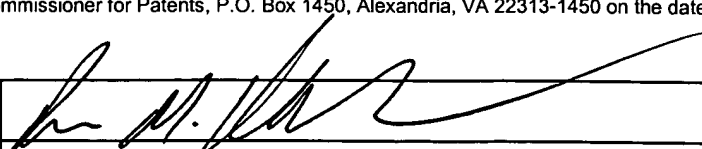
12w

PTO/SB/21 (09-04)

<b>ORIGINAL TRANSMITTAL FORM</b> MAR 28 2005 (to be used for all correspondence after initial filing)	Application Number	10/612,884
	Filing Date	July 2, 2003
	First Named Inventor	Michael Houghton
	Art Unit	1653
	Examiner Name	Stacy B. Chen
	Attorney Docket Number	PP019545.003 (2300-19545)
Total Number of Pages in This Submission		19

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form (1 page duplicate) <input type="checkbox"/> Fee Attached	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below): Check for \$1300.00 Return Receipt Postcard
<input type="checkbox"/> Amendment/Reply (15 pages) <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s)  <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<b>Remarks</b> The Commissioner is authorized to charge any additional fees to Deposit Account	

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	Chiron Corporation		
Signature			
Printed name	Roberta L. Robins		
Date	3/24/05	Reg. No.	33,208

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.			
Signature			
Typed or printed name	Denise M. Vaillancourt	Date	3/24/05

MAR 28 2005

PTO/SB/17 (12-04)

Effective on 12/08/2004. Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818). <b>FEE TRANSMITTAL</b> <b>For FY 2005</b>		<b>Complete if Known</b>	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27		Application Number	10/612,884
		Filing Date	July 2, 2003
		First Named Inventor	Michael Houghton
		Examiner Name	Stacy B. Chen
		Art Unit	1653
<b>TOTAL AMOUNT OF PAYMENT</b> (\$) 1300.00		Attorney Docket No.	PP019545.003 (2300-19545)

**METHOD OF PAYMENT** (check all that apply)

☒ Check   ☐ Credit Card   ☐ Money Order   ☐ None   ☐ Other (please identify): \_\_\_\_\_  
☒ Deposit Account   Deposit Account Number: 18-1648   Deposit Account Name: Robins & Pasternak LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below   ☐ Charge fee(s) indicated below, except for the filing fee  
☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17   ☒ Credit any overpayments

**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038

**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Small Entity	Fee (\$)	Small Entity	Fee (\$)	Small Entity	Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

**2. EXCESS CLAIM FEES**

Fee Description	Small Entity	
Fee (\$)	Fee (\$)	
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)
58	-20 or HP = 40 = 18	x 50	= 900			
HP = highest number of total claims paid for, if greater than 20						
Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)			
6	-3 or HP = 4 = 2	x 200	= 400			
HP = highest number of independent claims paid for, if greater than 3						

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).


Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 =	/ 50 =	(round up to a whole number) x		

**4. OTHER FEE(S)**

Non-English Specification, \$130 fee (no small entity discount)

Other: \_\_\_\_\_

**Fees Paid (\$)**

<b>SUBMITTED BY</b>			
Signature		Registration No. (Attorney/Agent)	Telephone (650) 493-3400
Name (Print/Type)	Roberta L. Robins	33,208	Date 3/24/05



I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date indicated below.

Date 3/24/05

Signature [Handwritten Signature]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

MICHAEL HOUGHTON

Confirmation No.: 6634

Serial No.: 10/612,884

Art Unit: 1653

Filing Date: July 2, 2003

Examiner: Stacy B. Chen

Title: HCV FUSION PROTEINS WITH MODIFIED NS3 DOMAINS

**RESPONSE TO REQUIREMENT FOR RESTRICTION  
AND PRELIMINARY AMENDMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This paper is presented in response to the restriction requirement mailed February 24, 2005, with a shortened statutory period of one month for response. Accordingly, this paper is timely filed.

Also accompanying this response is a Preliminary Amendment. Reconsideration of the application is requested in view of the following amendments and remarks.

03/28/2005 HGUTEMA1 00000035 10612884

01 FC:1201	400.00 OP
02 FC:1202	900.00 OP

**RESPONSE TO REQUIREMENT FOR RESTRICTION**

The Examiner identified 13 groups of claims as follows:

Groups I, claims 19-21, drawn to a method of stimulating an immune response;

Group II, claims 25-40, drawn to a polynucleotide,

with further restriction of Groups I and II required between one embodiment from claim 13(a)-(j) and claim 14(a)-(j);

Group III, claims 2 and 15, drawn to a fusion protein comprising a modified NS3 polypeptide and an HCV polypeptide other than NS3, wherein the modification comprises an amino acid substitution corresponding to His-1083, Asp-1105 and/or Ser-1165;

Group IV, claims 3, 13(a) and 14(a), directed to a fusion protein comprising a modified NS3 polypeptide, an NS4 polypeptide, an NS5a polypeptide, and optionally a core polypeptide;

Group V, claims 4, 13(b) and 14(b), directed to a fusion protein comprising a modified NS3 polypeptide, an NS4 polypeptide, an NS5a polypeptide, an NS5b polypeptide, and optionally a core polypeptide;

Group VI, claims 5, 13(c) and 14(c), directed to a fusion protein comprising a modified NS3 polypeptide, an E2 polypeptide, a p7 polypeptide, an NS2 polypeptide, an NS4 polypeptide, an NS5a polypeptide, and optionally a core polypeptide;

Group VII, claims 6, 13(d) and 14(d), directed to a fusion protein comprising a modified NS3 polypeptide, an E1 polypeptide, an E2 polypeptide, a p7 polypeptide, an NS2 polypeptide, an NS4 polypeptide, an NS5a polypeptide, and optionally a core polypeptide;

Group VIII, claims 7, 13(e) and 14(e), directed to a fusion protein comprising a modified NS3 polypeptide, an E2 polypeptide, an NS4 polypeptide, an NS5a polypeptide, and optionally a core polypeptide;

Group IX, claims 8, 13(f) and 14(f), directed to a fusion protein comprising a modified NS3 polypeptide, an E1 polypeptide, an E2 polypeptide, an NS4 polypeptide, an NS5a polypeptide, and optionally a core polypeptide;

Group X, claims 9, 13(g) and 14(g), directed to a fusion protein comprising a modified NS3 polypeptide, an E2 polypeptide, and optionally a core polypeptide;

Group XI, claims 10, 13(h) and 14(h), directed to a fusion protein comprising a modified NS3 polypeptide, an E1 polypeptide, an E2 polypeptide, and optionally a core polypeptide;

Group XII, claims 13(i) and 14(i), directed to a fusion protein comprising a modified NS3 polypeptide, an E2 polypeptide, a p7 polypeptide, an NS2 polypeptide and optionally a core polypeptide; and

Group XIII, claims 13(j) and 14(j), directed to a fusion protein comprising a modified NS3 polypeptide, an E1 polypeptide, an E2 polypeptide, a p7 polypeptide, an NS2 polypeptide, and optionally a core polypeptide.

Applicants note claims 1, 11, 12, 16-18 and 22-24 are considered to link the claims of Groups III-XIII and that upon allowance of the linking claims, the restriction requirement as to the linked inventions will be withdrawn. Applicants assume that new claims 45, 46, 49 and 50, presented in the Preliminary Amendment, will also be considered linking claims.

Applicants elect to proceed with the claims of Group V, claims 4, 13(b), 14(b), and new claims 41 and 42, with traverse. Applicants expressly reserve their right under 35 USC §121 to file one or more divisional applications directed to the nonelected subject matter during the pendency of this application.

Applicants traverse this restriction requirement for the following reasons. All of the claims of Groups III-XIII pertain to fusion proteins including a modified NS3 polypeptide and at least one additional HCV polypeptide. Applicants submit a search of the claims of Groups III-XIII together would not be overly burdensome for the Examiner as a search for a fusion protein containing a modified NS3 polypeptide would inevitably turn up art directed to fusion proteins containing a modified NS3 polypeptide in combination with the various HCV polypeptides as claimed in each of Groups III-XIII.

MPEP §803 states:

If the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent and distinct inventions. (Emphasis added.)

Applicants submit that an examination of the claims as proposed above, would not impose a serious burden on the Examiner. Indeed, applicants believe that failure to examine the claims as proposed would pose a far greater burden on the Patent and

Trademark Office, by requiring a duplication of effort and resources, since a search directed to the claims of each of Groups III-XIII would turn up overlapping art if such art existed. Accordingly, applicants respectfully traverse the above restriction requirement and request reconsideration thereof.